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ABSTRACT

This paper traces the range of literacy events that occur in one cybercommunity whose members are participants in the ongoing role play, "Cybersphere." A sample text produced by users within the community serves as the focus for critical analysis and offers a rich example of the ways in which language is being used within cyberculture. Some of these ways replicate offline communication, while others are unique to cyberculture and deserve close inspection if people are to understand the complexities of the literacy being adopted by students. The paper concludes that virtual environments flourish across the Web, and educators have much to gain by accessing the technology and involving their students. Contains 12 references. (Author/NKA)

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Literacy and Cyberculture.

by Angela Dudfield

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Literacy and Cyberculture

Angela Dudfield

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Abstract

This article traces the range of literacy events that occur in one cybercommunity whose members are participants in the online role-play "Cybersphere." A sample text produced by users within the community serves as the focus for critical analysis and offers a rich example of the ways in which language is being used within cyberculture. Some of these ways replicate offline communication; others are unique to cyberculture and deserve our close inspection if we are to understand the complexities of the literacy being adopted by our students.

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Literacy and Cyberculture

Angela Dudfield

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With ever-increasing numbers of schools coming online and with home computers becoming more common, our students are readily embracing contemporary forms of cyberculture. As an inevitable result, they are engaging in hybrid forms of literate behavior -- using a mixture of traditional and new forms of literacy to communicate with others.

These are the "children of mass media" (Amerika & Olsen, 1995), children who have grown up surrounded by TV, mobile phones, computers, and now the Internet. These children have new needs, new capabilities, new capacities; they are significantly different in nature from children born before the existence of the "wired" world. These are the children who at age 2 can work out how to use a video machine in order to watch their favorite Disney movie, children who at age 4 are playing with one of the latest CD-ROM versions of *Madeline* so they can learn a few words to communicate with a new French-speaking girl at preschool. In their imaginative play, children's games of "house" now include leaving room for a home office, complete with fully wired computer. At age 6 they are scanning their latest drawings and e-mailing them as attachments to a 60-year-old grandmother in another country. Today's children go on real-life vacations and re-create their experiences at home on a webpage complete with graphics, links, factual information, and notes from their diaries (Bruckman, 1996). Reading and composing hypertext is second nature for them (Reinking, 1997), and they can program objects to keep in their virtual inventories, objects that can be manipulated and used within virtual worlds. They tinker with gender, race, age, and other elements of their identities and live and learn vicariously by becoming characters in online role-plays. They can even exist simultaneously as multiple characters, easily managing their many identities just as they manage multiple windows on the computer screen (Turkle, 1995).

According to a 1998 survey conducted by the Australian Bureau of Statistics, 19 percent of Australian households had Internet access. By the end of 1999, a predicted 32 percent of households will have access, based on figures of those reporting their intention to connect. Children accounted for 50 percent of reported home Internet users. Similar growth in Internet access and use is being seen in many nations worldwide. In the not-too-distant future, the children who enter our classrooms will be more computer literate than ever before.

An examination of literacy events in one cybercommunity where members of this new generation of students are immersed is the subject of the remainder of this article. When we educators become more educated ourselves -- both about the changing nature of our students in this postmodern world and about the literacies of cyberculture -- we will be better equipped to exploit the Internet for all its educational possibilities.

Description of the Cybercommunity

My particular focus here is on a "real-time talk" community. There are various types and titles given to the range of software packages, or "clients," used to shape the spaces in which these communities exist on the Internet; they include talkers, MUSHes (multiuser shared hallucinations), MUSEs (multiuser simulated environments), MOOs, and MUDs. The acronym *MOO* stands for "MUD, object oriented," with *MUD,* in turn, being an acronym for "multiuser dungeon." MOOs evolved from MUDs, which evolved from the real-world Dungeons and Dragons role-playing games that have been popular with students for many years.

A MOO is a text environment not unlike an online chat room. Users are connected simultaneously to the same virtual "space," often called a "room," and engage in "conversation" with one another by keying text on their own computers in a "text-enter box" displayed on their screens. They then transmit their text over the Internet, and it appears (generally with a delay of only a few seconds) in the "chat window" on the screen. The lines of dialogue are identified by each user's name or nickname. The exchange can look similar to lines from a script, as in

> Kallysta: Hey, Anya, what did you think of "The Matrix"?
> Anya: Well, if scientists look to sci-fi for inspiration, it was pretty scary! You think we'll ever download our brains onto a computer?

Special codes or commands are used to create what is termed an "emote" or "action," so that a user can make a statement in the third person. For example, if I typed

> :waves hello

in my text-enter box, the other people in the room would see

> Angela waves hello.

MOO users also experiment with different ways to indicate emphasis or to express certain tones of voice or speech modalites; some methods become accepted and take on the status of conventions within particular communities. For example, underscored text or words rendered entirely in uppercase letters can indicate stress, and particular symbols may denote specific words or emotions within the conversational community of a particular MOO.

There are numerous MOO sites online. Some are intended for social purposes or for people who share a hobby, some are educational, and others are based on themes and are particularly designed for role-play. The MOO selected for examination in this article, Cybersphere, is a role-play site chosen because of its popularity and longevity as an online community. It has been in existence for more than five years. In this MOO, users adopt roles based on a theme of a dark future. Cybersphere is a fictional postapocalyptic metropolis, a writhing anarchy of violence, where individuals face a constant struggle to survive. The streets are deadly, and crime runs rampant.

To be successful on Cybersphere, characters must learn survival techniques, gain credit for skills, and make objects to sell to others. Users write small computer programs to create these objects, and employ a range of typographical commands to buy, sell, trade, and so on. For example, one user role-plays a dressmaker. She has developed a code to create a dress, and the code gives the dress particular functions. The more sophisticated the dress and the things that can be done with it, the more the character can charge for it, and the more credits she earns. The computer language used to accomplish this is not the complex C++ of the computer studies graduate, but it is a quite sophisticated "object-oriented" code, and proficiency with it is required for users who want to be successful and stay alive in the cybercommunity.

When a user logs on to the crowded world of Cybersphere, he finds himself in a "sleeping coffin"--a tiny, cramped room in a "cube hotel." The only way to exit the hotel and enter the world (that is, to begin to play the game) is to type the command **@IC.** It is possible to enter Cybersphere as a guest, with the ability only to observe and engage in some basic movement. To gain full participation, however, users must create a character, either on their first log-in or after one or more guest sessions. A user creates his or her character by assigning it attributes -- including skills, sex, details of appearance, etc. -- from a range of menus. From there, the user can add more descriptive comments. As the character gains wealth through skillful game playing, the user can purchase additional features (both material and abstract) for him or her. Once a user enters in character, the fight for survival begins!

The Sample Text

The Cybersphere community was studied over a number of weeks. With the permission of the young people involved, I kept logs and transcripts of action. The sample text presented below is simple but illuminating, and represents the type of text produced in the MOO over the study period. It involves three people who logged on at the same time and were in character as their Cybersphere "others." The character Fabienne, whose real-life counterpart assisted in the collection of these data, wrote the following paragraph for me (not as part of the MOO dialogue) to serve as a prologue for the actual sample text. It provides context by describing, in a character's words, what happens when one first logs on: you "wake up" in a cube hotel, see the description of your coffin, type @ic to go into character, and then "out" to enter the city. If you have mail, a message awaits telling you to check your complant.

> I drift awake, feverish from troubled dreams, scratching at the roof of the cramped sleeping coffin in the cube hotel in which I had taken refuge, the gray light filtering through the thin, translucent Lucite walls. I kick open the door at the foot of the tube and squeeze out cautiously. I check my credstick and curse that I don't have the creds to buy a clone, and eye my surroundings half with fear, half with desperate hunger -- hunger for life, for survival at any cost. My complant was triggering my brain's communication bank and I activate it with a thought to access the day's incoming messages. Memories of last night come flooding back to me and I replay the scene in my mind, trying not to allow it to interfere with my thought-connection to the matrix.

When Fabienne leaves the cube hotel, she finds two others, Su-Lin and Arun, already "IC" on Cybersphere. The following exchange includes both direct speech and third-person narrative. The latter would have been entered by the user by means of specific commands recognized within the MOO programming. Each block of text was created by the particular character named.

> Su-Lin takes the room into account, and leans insolently upon her katana, staring at you. "Well then, it seems we've got a VF in a bad place. With nobody around."
>
> Arun's right index finger absently scratches his chin, his cold emerald eyes scanning the area slowly.
>
> Fabienne looks around and sizes Su-Lin up, "well . . . . i wouldn't say nobody . . . . " Fabienne glances sideways at Arun.
>
> Arun's gaze falls on Fabienne eventually, "Oh?" Arun moves from his place at the wall, "I would."
>
> Su-Lin scratches her nose absently, staring at Fabienne with a sneer. "Oh, I would. You look fairly well off, Ms. Nobody? Why you here?"
>
> Arun's right hand falls to the hilt of his katana. His eyes never leave Fabienne's.
>
> Fabienne takes a step backwards, placing the cold steel of the coffins to her back and looks at Su-Lin, "well. why wouldn't i be here?"
>
> Fabienne reaches over her shoulder and feels the katana on her back . . . .
>
> Arun's fingers drum silently on the heavily wrapped hilt. Arun whistles softly, "I wouldn't." Arun's expression breaks into a cold grin as he watches Fabienne move for her blade.
>
> Su-Lin's face grows more chilly by the second, as she grins ferally in Fabienne's direction. "Oh, you won't be need that katana, _VF_. And I do advise against its use. You see, my associate and I are . . . . tax collectors . . . . in the area."
>
> Su-Lin raises her katana, resting the blade upon her shoulder. "And, being good civil

servants, it's always our duty to collect the proper levies from the citizenry. Since you can't explain why you're here . . . . in this coffin area . . . . I think we'll have to collect from you, don't you think, Mr. Arun?"

Arun reaches for his blade in a quick fluent motion.

Arun slides his katana from his sword case with a soft =schnickt=.

Su-Lin nods slowly in Fabienne's direction. "I should also warn you . . . . Mr. Arun and I also serve in the capacity of justice department, as well, and we hold the powers to execute those who dodge their taxes. Now then . . . . let's tally things up, shall we?"

Arun rolls his wrist, the lustrous metal slashing through the air with the barest of noises and the shiniest of flashes.

Fabienne looks at Arun, rather annoyed, "now is that really necessary . . . . ?"

[Arun types @look Fabienne]

Arun's typed command yielded the following description, written by the creator of the Fabienne character at some time prior to this exchange and stored at the Cybersphere MOO site. This output would be displayed only for Arun, and not for all users logged on at the time.

[Fabienne is] skinny and it makes her look taller than the 5'9" she really is. Her long face isn't exactly beautiful, but it has an intriguing quality. Maybe it's her eyes, her dark eyes that always seem to hide more than they reveal. Or maybe it's her long black hair that hangs around her face as if it's always still wet. Maybe it's her lips, thin but well defined, as if they had been drawn with a very fine pencil. Maybe it's her poise, her back always straight, her head always high. Or maybe it's the way she gesticulates when she speaks, deliberately as if she were conducting a big orchestra. Maybe it's her voice, the kind of voice that would belong to someone with a glass of whiskey and a cigarette, sitting in the corner of a dark bar, singing, accompanied by an accordion.

She's wearing a long leather coat. It has a collar of fake raccoon fur that seems to be torn loose from the right lapel. The long leather coat has a double set of buttons that Fabienne keeps unbuttoned. Under her long leather coat you can see the faint glimmer of a burgundy silk shirt. She also wears a faded pair of black jeans. Shiny fourteen hole Dr. Martens cling to her feet.

Fabienne is skilled in Martial Arts, Aikijutsu, Japanese, and Gun Repair. Her skills with the knife, swords, and pistol are impressive. She has advantages of superhuman intelligence, superior stealth, remarkable strength and dexterity, good thievery, and ability to have implants.

She is in excellent health. She is holding a credstick, a katana, a copy of Gideon's Bible, and a glass of zot.

Analysis of the Text

I used Fairclough's (1992) tool for critical discourse analysis to examine this text. Fairclough's technique emphasizes the need to place texts within their social contexts and provides a framework for doing so. This is most appropriate when examining a text such as this: if one were to remove its social context, understanding would be tremendously impaired. In fact, even when I identified the passage as "MOO text" to share it with colleagues, many were unable to follow it.

Of the several dimensions of analysis identified by Fairclough (1992), two -- discursive practices

and social practices -- are particularly useful for a close examination of the significant features of this type of text.

Discursive practices. Language use in this text is highly complex and sophisticated. It is "both physical (letters on the screen) as it is in books, and fleeting and ethereal like speech . . . a strange middle ground between written and oral sensibilities" (Young, 1994). Users interact by "talking" with one another, but that talk is "talk written down." What occurs in this form of communication is an interface between oral and written language, with its own unique textual and linguistic features.

The text genre is also complex. It is similar to traditional science fiction, and its field, one of surviving in a postapocalyptic world, is realized by the use of lexical items common to that form. Yet, unlike traditional print, the descriptions of the characters are not explicitly woven into the text -- they are prepared by users in advance and are accessed (by individual users) and transformed (by the character's creator) when required or desired. This process is also applied to descriptions of clothing, "locations" on Cybersphere, and various created objects. Successful interaction in this environment requires use of narrative, descriptions, dialogue, performative actions, labels, lists, and abbreviations, all within the context of the theme and genre of the MOO and all interwoven in nonlinear fashion.

Participants are in a constant flux of reading and writing to co-construct the text in imaginative, innovative ways. Each "encounter" is unique since the way it takes shape depends on which characters happen to be logged on, how often those characters have interacted previously, their own individual personalities (both in and out of character), and the nature of their in-character and out-of-character relationships within the community.

Also included in the sample text is a command, "@look," used to produce a certain type of textual output. In this case, the output is for a single individual -- only Arun could see Fabienne's description of herself, since he was the one who typed the command. Other commands produce output for the entire MOO audience. For example, on Cybersphere, "@wear boots" might yield a macro of preprogrammed text stating "[character name] is wearing a pair of black leather ankle boots," displayed for everyone in the room at the time. In any role-playing session, users access information from a range of sources (profiles, news bulletins, descriptions, help files, news files, and object messages) not restricted to that particular session -- evidence of the high degree of "interdiscursivity" that occurs.

The programming of objects to perform certain textual acts on command is a unique feature of text-based realities such as MOOs and MUDs. Participants as young as 10 know how to program so that their creations can be the focus of amusement, praise, and enjoyment by others. As Young (1994) notes, "the reward is the feeling of belonging as an active participant in the online community."

In terms of discursive practices, then, this sample represents interactive, reflective role-playing. Some portions of it are improvised; others, such as the description of Fabienne, are carefully constructed. Indeed, even the "improvised" exchange between the characters is not necessarily entirely so -- there can be a delay in a user's processes of thinking, typing, revising, and finally pressing the enter key that translates thoughts into text to be read by others. It is more than speech, it is different from the written word, and it is evolutionary. Participants in it are actively engaged literate subjects. The language they produce creates and transforms a situation; they are in control, and whatever they "utter" occurs within the narrative.

Social practices. Users of online media are actively participating in community building and social engagement. As Bruckman (1996) points out, "people come to the net to participate and create, not to receive information passively. 'The Information Superhighway' is a misnomer. It's not about information; it's about community, participation, and creation." As one teenager put it, "Talking to millions of people all over the world can give you quite a rush" (Moraitis, 1997, p. 70).

In the sample text, the character of Fabienne was constructed by her user as an intriguing woman,

skilled in martial arts, able to speak Japanese, and with a particular physical presence. In "real life," Fabienne is a young man from Holland, English is his second language, and he studies gender issues online as part of his school work. The medium allows users to create new identities that exist and "live" in multiple ways. As Lemke (1998) comments, they are no longer trapped by their "ecological" realities. Luke (1997) asserts that users are not "confined" by issues of race, age, gender, culture, or geographical location. The opportunity to tinker with identity and to explore different storylines in which to exist allows users to push the boundaries of identity. Turkle (1995) comments further that "the virtual space becomes a laboratory for the construction of identity" (p. 184).

In his discussion about the virtual and the real, Lemke (1998) asks, "What is 'literacy' when the distinction between reading and living itself is nominal? When a reality becomes our multimedia text . . . ?" (p. 299). In Lemke's view, virtual reality is inextricably linked to "actual" reality: participants create a full sense of presence and "live" semiotically online just as they live semiotically in the ecological world, making the same cultural and personally meaningful sense of participation in each reality.

The person playing the role of Fabienne on Cybersphere could have any number of other windows open on his screen: perhaps while participating in the creation of this sample text, he was simultaneously role-playing a furry animal in a theme park MOO, chatting in an e-mail discussion group, browsing the Net for free games to download, ftp-ing a picture of the "real him" to a girl he is romancing on a another space where he has revealed his true age and sex, and drinking a cup of hot chocolate while he talks to his brother, who is sitting beside him. In each "window" he has constructed a certain reality and a respective "identity"; his ecological reality is simply another window in his life.

A unique feature of online social practices is the way in which they position the user. Users have new freedom: they can be in authority, and they can control their level of participation. In this sample text, the participants constructed their own power relations within the narrative they created, but they are all equal and active, willing to exchange or forfeit power to create the tensions and excitement of a stimulating narrative. A character who relinquishes overt power in the narrative can become a dominant and significant figure in the development of the text. This clearly challenges the traditional patterns of discourse noted by Fairclough (1992). Of particular significance, age is no measure for expected "power" online. Fifteen-year-olds can and do challenge 50-year-olds without hesitation.

Summary. The table presents a summary of the features I have discussed as being significant and unique to online literacy events such as the one illustrated in this sample text.

Significant Features of the Sample Text

Discursive Practices	Social Practices
Reflective writing: the electronic medium allows opportunities for reflection and refining thought before making words public	Community participation: participants achieve a sense of belonging and use language to "exist," to have a voice
Interdiscursivity: texts can be preprogrammed, prewritten, or produced synchronously; innovative discourse types	Identity construction: potential for multiple "selfs" and to exist in ways not possible in the "real world"
Reader-writer state of flux: participants are in an ongoing process of reading what others have written or are writing, and writing their own contributions	Reader subjectivity: users are in positions of expertise and control and are coauthors of the texts in which they participate
Command-driven texts: commands are used for moving within the environment and for manipulating and programming objects	

The young people who participated in this text have been members of this community for some time. They consider their role-playing as entertainment and were both shocked and honored to be asked if a transcript of their text could be used in this article. From their perspective, they were not participating in a unique and developing form of literacy; they were producing "just another episode" in their Cybersphere lives.

Implications

The students who created this sample text are representative of the many young people who spend a good part of their leisure time living and interacting online. They know operating systems inside out, they spend hours building and programming public spaces and objects for the entertainment of their friends, and they are "experts" in their online communities. This study clearly indicates that these students are participating in discursive and social practices that have no parallel in the classroom. Fairclough (1992) argues that in cases where different settings in people's lives create the need for diverse positioning of themselves as subjects, people either accept and modify their behavior to cope with each setting or they struggle and contest for change. Given the radical new subject positioning students are experiencing and the changing nature of the literacies in which they are becoming adept, it should not come as a surprise if at least some either "switch off" schooling or fight for change.

Is there nothing that educators can do? Kress (1997) contends that "it would be an unforgivable dereliction of the responsibilities of intellectuals if the potentials offered by current developments were not fully explored, and a concerted attempt made to shape their direction to bring about at least some of the much talked about utopian visions of communication in the electronic age (p. 79). It is, then, the social responsibility of educators to address the demands of technological literacies. New literacies represent a new language of power, and educators -- from those who set policy to those working in the classroom -- need to strive to understand the discursive and social practices of the online environment and make a concerted effort to "keep up" with technological progress

and its implications for students' actual and virtual worlds.

In the text examined in this paper, the young participants were engaging in highly sophisticated, imaginative, and innovative literacy experiences. When given authority, equality, an audience, a purpose, and choice, they co-created an exceptional instance of a literate text. These students research the theme together, teach one another, and problem solve in collaboration. For them, going to school and using a computer to word process or fill out a worksheet is frustrating, boring, and barely taps into their existing skills and abilities, let alone challenging them to develop new ones.

Conclusion

Users on Cybersphere engage in a wide range of literacy events with the specific purpose of sustaining and building their community, a community in which they find social pleasure and stimulating challenges. Literacy is used to create identity, to interact with others, to create momentum, and to devise and solve challenges related to survival in the community. How can teachers best meet the needs of a generation with such considerable computer literacy? How can we best take advantage of the potential the Internet offers for authentic educational experiences?

Lemke (1998) advocates a "social interactive paradigm" of teaching and learning in which students are encouraged to engage in collaborative group work and peer teaching. Lankshear, Peters, and Knobel (1996) support the notion of networked learning. Certainly, the notion of networks and interactivity is a key to the success of the Cybersphere MOO. The degree of power within the community directly relates to the ability of the users to work together in literacy events. In any MOO, all users are writers, readers, creators, and co-conspirators in the construction of their community life. The computer-literate generation is a generation of writers, writers with real purposes and real audiences.

Virtual environments flourish across the web, and educators have much to gain by accessing the technology and involving their students. Virtual communities have the potential to foster literacy and learning beyond the scope of the classroom. Although the Cybersphere MOO has a "cyberpunk" theme that some might find objectionable, the literacy events and demands on users are significant. Flourishing in cyberspace are countless other MOOs where literacy is taking similar forms -- communities focused on art, theater, literature, and science. Tapping into these environments or creating custom-made educational communities can provide literacy opportunities for students that are meaningful, exciting, challenging, and fun.

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